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August 3, 2017

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, SW, Room TWA325 Washington, DC 20554

Re: Inland Cellular LLC

Initial Implementation Plan and First Progress Report E911 Location Accuracy

PS Docket No. 07-114

Dear Ms. Dortch:

Inland Cellular LLC ("Inland"), by its counsel, hereby submits its initial implementation plan and first progress report on implementation of indoor location accuracy improvements pursuant to Sections 20.18(i)(4)(i) and (ii) of the Commission's Rules.

Please contact Inland's undersigned counsel if you have any questions.

Sincerely,

/s/ Timothy J. Cooney
Timothy J. Cooney

# Inland Cellular LLC Initial E911 Location Accuracy Implementation Plan and Progress Report PS Docket No. 07-114

Inland Cellular LLC ("Inland") hereby provides its initial location accuracy implementation plan and progress report, as required by Sections 20.18(i)(4)(i)-(ii) of the FCC's rules and the Fourth Report and Order in PS Docket No. 07-114, 30 FCC Rcd 1259 ( 2015) ("Fourth Report and Order").

Inland is a Tier III CMRS service provider that provides service in the States of Idaho and Washington and does not serve any of the top 50 Cellular Market Areas (CMAs). Inland provides E911 services to requesting PSAPs in conjunction with West Safety Services ("West," formerly known as Intrado). Representatives of West have participated in the implementation of the indoor 911 location accuracy test bed. The Location Performance Management (LPM) Executive Summary prepared by West is attached as an appendix.

## **Progress Report**

Inland has worked to provide public safety with accurate location data for emergency callers. To date, Inland has timely performed its 2017 Fourth Report and Order location accuracy obligations and has submitted compliance documentation to the FCC by the following deadlines:

## February 3, 2017

Inland's Non-Nationwide Carrier Live 911 Call Report was submitted to the FCC to provide aggregate live 911 call data covering the reporting period October through December 2016. As a non-nationwide CMRS provider that does not provide coverage in any of the six Test Cities, Inland provided data in accordance with Section 20.18(i)(3)(ii) of the FCC's rules. Inland's report also was sent to the National Emergency Number Association (NENA), the Association of Public-Safety Communications Officials (APCO) and the National Association of State 911 Administrators (NASNA).

#### April 3, 2017

In accordance with Section 20.18(i)(2)(i)(B)(1) of the FCC's rules, Inland had begun to provide dispatchable location or x/y location information within 50 meters for 40 percent of all wireless 911 calls.

# May 31, 2017

Inland submitted to the FCC certification that as of April 3, 2017, it was a non-nationwide CMRS provider that does not provide coverage in any of the six Test Cities, was providing dispatchable location or x/y location information within 50 meters for 40 percent of all wireless 911 calls, had deployed the indoor location technology or technologies used in its networks consistently with the manner in which such technologies have been tested in the test bed, and had verified based on its own live call

data that it was in compliance with the two-year benchmark set forth in Section 20.18(i)(2)(i)(B)(1) of the FCC's rules.

# August 1, 2017

Inland's second Non-Nationwide Carrier Live 911 Call Report was submitted to the FCC providing aggregate live 911 call data covering reporting period April through June 2017, with copies sent to NENA, APCO and NASNA.

# August 3, 2017

As a non-nationwide provider, Inland submits its initial plans for implementing indoor location accuracy requirements in accordance with Section 20.18(i)(4)(i) of the FCC's rules and submits its first progress report on implementation of indoor location accuracy requirements in accordance with Section 20.18(i)(4)(ii) of the FCC's rules.

Inland has adopted procedures that comply with FCC indoor accuracy requirements:

Inland retains for two years all testing and live call data gathered for Non-Nationwide Carrier Live 911 Call Reports in accordance with Section 20.18(i)(3)(iii) of the FCC's rules.

Inland delivers x- and y-axis (latitude, longitude) confidence and uncertainty (C/U) data for all wireless 911 calls - whether placed from indoors or outdoors - at the request of a Public Safety Answering Point (PSAP), on a per-call basis, with a uniform confidence level of 90 percent in accordance with Section 20.18(j) of the FCC's rules.

Inland collects and retains for two years information on all wireless 911 calls placed on its network, including the positioning source method used to provide a location fix associated with the call. The data is made available to PSAPs upon request in accordance with Section 20.18(k) of the FCC's rules.

# Implementation Plan

Inland plans to continue to meet FCC indoor location accuracy requirements of Section 20.18 of the FCC's rules. To this end, Inland utilizes the expertise of highly qualified providers of 911 technology services such as West, which provides Inland with Location Performance Management summarized in the appendix. For thirty years, West has offered the industry reliable, high-quality, voice and data and network infrastructure services. More than 1,000 organizations work with West to access over 6,000 public safety answering points (PSAPs). West helps ensure that wireless callers have unrestricted access to emergency services, regardless of their location.

Inland participates in West's Accuracy Compliance Testing program, wherein West performs testing, conducts test calls and updates BSA information. West's accuracy compliance testing capabilities include:

- Testing existing PSAP or county locations
- Ensuring FCC compliance and reporting
- Achieving BSA optimization
- Measuring accuracy drive testing
- Performing BSA generation and calibration
- Performing BSA optimization and maintenance
- Generating calibration test points

Inland will work with West and other vendors to incorporate technological advancements to deliver accurate and useful location information to emergency dispatch personnel.

In addition to submitting E911 live call data annually on February 1 and August 1, Inland expects to comply with the following requirements summarized on the FCC's website at <a href="https://www.fcc.gov/public-safety-and-homeland-security/policy-and-licensing-division/911-services/general/location-accuracy-indoor-benchmarks">https://www.fcc.gov/public-safety-and-homeland-security/policy-and-licensing-division/911-services/general/location-accuracy-indoor-benchmarks</a>:

#### 2018

April 3, 2018 (Three-year benchmark)\*

All providers must achieve 50-meter horizontal accuracy or provide dispatchable location for 50 percent of all wireless 911 calls. (47 C.F.R. § 20.18(i)(2)(i)(A))

August 3, 2018

All providers must submit their second progress reports on implementation of indoor location accuracy requirements. Nationwide providers must include an assessment of the deployment of dispatchable location solutions. (47 C.F.R. § 20.18(i)(4)(ii))

All providers must begin delivering uncompensated barometric pressure data to PSAPs from any device capable of doing so. (47 C.F.R. § 20.18(i)(2)(ii)(A))

#### 2020

April 3, 2020 (Five-year benchmark)\*

Non-nationwide providers must achieve 50-meter horizontal location accuracy or provide dispatchable location for 70 percent of all wireless 911 calls by this date or within 6 months of the provider's deployment of a commercially operating VoLTE network, whichever is later. (47 C.F.R. § 20.18(i)(2)(i)(B))

#### 2021

April 3, 2021 (Six-year benchmark)\*

Non-nationwide providers must achieve 50-meter horizontal accuracy or provide dispatchable location for 80 percent of all wireless 911 calls by this date or within

1 year of the provider's deployment of a commercially operating VoLTE network, whichever is later. (47 C.F.R. § 20.18(i)(2)(i)(B))

\* Providers must certify compliance with the benchmark within 60 days of the applicable deadline. (47 C.F.R. § 20.18(i)(2)(iii))

Please contact Inland's outside counsel Christine Crowe at 202-383-3334 or <a href="mailto:crowe@wbklaw.com">ccrowe@wbklaw.com</a>, if you have any questions.

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Mike Bly

**Director of Business Operations** 

Date: August 2, 2017

# **West Safety Services**

# **Executive Summary**

## **Location Performance Management**

Location Performance Management (LPM) compiles and aggregates complex data sets to help proactively manage and report on location accuracy and network performance. LPM arms the carriers with key insights to help manage emergency 9-1-1 call locations so it is easier to identify areas for improvement.

With LPM, carriers can optimize their network to its highest accuracy and fastest time-to-first-location fix available and report accuracy compliance with the FCC's requirements.

There are two main modules to LPM:

- 1. PERFORMANCE MONITORING TOOL (PMT), and
- 2. ACCURACY ANALYSIS REPORTING (AAR)

LPM'S PERFORMANCE MONITORING TOOL provides a set of features that enables the user to perform the following:

- Pinpointing location performance issues
- Optimizing network functionality to certify and trust location performance
- Performing proactive risk management of position determination issues
- Providing reports that allow for Auditing KPIs, call results, and analyzing location server performance

LPM'S ACCURACY ANALYSIS REPORTING provides a suite of reports that enables the user to perform the following:

- Reporting compliance with the FCC's location accuracy rules (Drive testing calls are needed to do this)
- Increasing location accuracy across your network
- Generating visual, data-rich, customizable reports
- Measuring baseline accuracy results in test areas

Aside from features stated above, West's Location Performance Management tool suite also supports cellular network optimization and provides reporting data for Phase II Location Accuracy requirements set forth by Federal Communications Commission (FCC) Fourth Report and Order on E9-1-1 Location Accuracy Requirements.<sup>1</sup>

There are three reports that LPM provides that have been utilized to create compliance filings.

<sup>&</sup>lt;sup>1</sup> PS Docket No. 07-114, Wireless E911 Location Accuracy Requirements, Fourth Report & Order.

- **Live Call Data Report** This report is provided on semi-annual basis and provides the Live Call Data yields by technology and morphology for any reporting county identified by Inland.
- **50m Accuracy Report** This report provides data for the largest county in Inland's wireless network footprint. Additionally, this report weights the Indoor Test Bed data derived from Test Bed, LLC against Inland's live 9-1-1 call distribution within the reporting area to determine a final location accuracy metric.
- **PSAP Report** This Report provides the total number of calls delivered to a specific Public Safety Answering Point (PSAP) and is can be generated on demand for a given period as needed.

The data compiled herein aligns with ATIS' 05000031 recommendation, whereby the option to blend outdoor accuracy test data with indoor test bed data and Inland's live 9-1-1 call data has been exercised.